

iMProvement

Jurnal Ilmiah Untuk Peningkatan Mutu Penddikan e-ISSN: 2597-8543





ANALYSIS OF THE INFLUENCE OF LEADERSHIP COMPETENCY, STAFF INVOLVEMENT, AND FACILITIES ON THE PERFORMANCE OF EDUCATIONAL INSTITUTIONS

Safngatul Ngasris Samaniyah¹
Rissasamaniyah@gmail.com

1Syubbanul Wathon College of Islamic Studies, Indonesia

Siswanto²

<u>siswant@staia-sw.or.id</u>
²Syubbanul Wathon College of Islamic Studies, Indonesia

Milna Wafirah³
<u>milnawafirah@staia-sw.or.id</u>
³Syubbanul Wathon College of Islamic Studies, Indonesia

ABSTRACT

This study aims to analyze the influence of leadership competence, staff involvement, and facility quality on the perception of effectiveness in educational organizations. A quantitative approach is used with the Partial Least Squares Structural Equation Modeling (PLS-SEM) method to test the relationship between leadership competence, staff engagement, facilities, and perception of organizational effectiveness. Data was obtained from a survey of employees of educational institutions with a total of 100 respondents selected using purposive sampling. The results of the analysis show that staff facilities and involvement have a significant effect on the perception of the effectiveness of educational organizations, while leadership competencies have a lower direct influence. These findings indicate that adequate facilities and staff involvement are important factors in shaping a positive perception of organizational effectiveness. This study contributes to the literature on internal factors that affect the effectiveness of educational organizations, in particular by exploring the influence of a combination of variables of leadership competence, facilities, and staff engagement. This study closes the knowledge gap related to the comprehensive impact of these factors on the perception of organizational effectiveness. These findings provide recommendations for educational leaders to improve resource allocation to support facilities and increase staff involvement in decision-making. This is important for creating a conducive work environment, which will contribute to the perception of the organization's effectiveness and the potential for overall productivity improvement

Keywords: Educational Organizational Effectiveness, Leadership Competencies, Organizational Facilities, PLS-SEM, Staff Engagement.

INTRODUCTION

Superior quality of education is the main goal of educational institutions around the world (Heleta & Bagus, 2021). In achieving this goal, many factors affect the performance

191

of educational institutions, including leadership competence, staff involvement, organizational quality, and the availability of supporting facilities (Dzimińska et al., 2018). Leadership competence in educational institutions is very important because an effective leader can formulate a vision, motivate staff, and set high standards in every aspect of organizational operations (Ireland & Hitt, 1999). The success of the organization is also greatly influenced by the organizational culture that encourages cooperation, transparency, and effective communication so that each member feels that they have a role in achieving common goals (Bagga et al., 2023).

In addition, staff involvement is a key component in building a positive work environment and supporting the improvement of organizational performance (Nazir & Islam, 2017). The active participation of all members of the institution not only increases efficiency but also encourages innovation and strengthens the quality of educational services provided (Leal Filho et al., 2019). Healthy and collaborative organizations will be able to overcome complex educational challenges and maximize the potential of each individual to achieve optimal educational outcomes (Kioupi & Voulvoulis, 2019).

Effectiveness in organizational performance has become an important field of study, especially in examining how internal factors contribute to the success of an organization (Matarneh et al., 2019). Specifically, leadership competencies (Reed et al., 2019), facilities, and staff engagement were identified as key elements that affect the perception of effectiveness in an organization (Huang et al., 2023). In the context of human resource development (Akdere & Egan, 2020), understanding the impact of these factors is crucial because they collectively shape the work environment (Alshammari, 2020), employee satisfaction, and ultimately, organizational productivity (Lee & Kim, 2020). Despite numerous studies on organizational effectiveness (Nienaber & Martins, 2020), there is still a gap in understanding the combined impact of leadership competencies (Shet et al., 2019), facilities, and staff engagement on the perception of organizational effectiveness (Liu et al., 2022). This study aims to fill that gap by exploring the relationship between these factors and how they affect perceptions in organizations (O'Connor & Crowley-Henry, 2019).

Furthermore, the availability of adequate facilities such as physical facilities and technology also contributes significantly to the performance of educational institutions (Oyekale, 2017). Good facilities not only support teaching and learning activities but also create a conducive atmosphere for students and staff, which can ultimately increase satisfaction and productivity (Kilag et al., 2023). An educational institution that is equipped with adequate facilities can function more optimally in meeting the needs of the learning process and developing students, as well as increasing its competitiveness in facing global challenges in the field of education (Pambudi & Harjanto, 2020).

The management of educational institutions today faces increasingly complex challenges, including rapid technological developments, changes in public expectations, and labor market dynamics that demand new competencies from graduates (Akour & Alenezi, 2022). Therefore, the existence of competent leadership is the key to facing this challenge, especially in creating adaptive and sustainable strategies for the progress of the institution (Leal Filho et al., 2020). In addition, the involvement of all staff as part of a solid education team can encourage cross-departmental collaboration, increase a sense of belonging, and encourage innovation in the learning process (Leal Filho et al., 2020).

The purpose of this article is to analyze the influence of leadership competencies, facilities, and staff involvement on the perception of organizational effectiveness. The main research questions that guide this research are: (1) How does leadership competence affect the perception of effectiveness in an organization? (2) How much influence do facilities have on the effectiveness of the organization as perceived by employees? (3) What is the role of

staff involvement in shaping the perception of effectiveness? By answering these questions, this study aims to develop a comprehensive understanding of how these internal organizational factors interact to influence the perception of effectiveness.

This study uses a quantitative approach with *Partial Least Squares Structural Equation Modeling* (PLS-SEM) to test the relationship between leadership competence, facilities, staff engagement, and perception of effectiveness (J. F. Hair et al., 2019). Data was collected through surveys distributed to employees in various organizational settings, with the results analyzed to test the hypothesis put forward (J. Hair et al., 2017). PLS-SEM was chosen for its ability to model complex relationships and provide robust results even with smaller sample sizes, making it suitable for exploratory research on organizational factors (J.F. Hair et al., 2011).

Research on the factors that affect the perception of effectiveness in organizations has been extensively conducted, especially related to the role of leadership competencies, facilities, and staff involvement. *Leadership Competencies* are considered one of the main factors in determining organizational effectiveness (Heinen et al., 2019), with competent leaders having the ability to direct teams (Tang et al., 2020), facilitate good communication, and manage conflicts effectively (Leal Filho et al., 2020). Leadership competencies include a leader's ability to provide direction, motivation, and effective decision-making, which directly or indirectly affects the perception of effectiveness among members of the organization (Wei et al., 2018). Leadership theory states that effective leaders can increase productivity and work motivation, which in turn can increase the perception of effectiveness throughout the organization (Bowers & Seashore, 1966).

In addition to leadership, *facilities* also have an important role in creating a supportive work environment (Tourangeau et al., 2010). Adequate facilities, such as comfortable workspaces, adequate technology, and sufficient resources, can increase productivity and influence positive perceptions of organizational effectiveness (Andargie & Azar, 2019). According to *the Resource-Based View* (RBV) theory, adequate resources can be a competitive advantage for organizations because they can improve operational efficiency and facilitate employee performance (Lockett et al., 2009). In this context, high-quality facilities can provide practical support for employees in carrying out their duties, which in turn increases the perception of overall effectiveness in the organization.

Staff Engagement is also identified as a key factor in increasing the perception of effectiveness in the organization. Staff engagement refers to the extent to which employees feel emotionally involved and committed to organizational goals (Kerfoot, 2007). Studies show that engaged employees tend to have higher levels of motivation, work more productively, and have a positive perception of organizational effectiveness (Leitão et al., 2019). This concept is also related to the theory of Social Exchange, where employees who feel valued and supported by the organization will make a greater contribution and improve overall performance (Cropanzano et al., 2017). Thus, organizations that successfully build high staff engagement tend to have a more productive and effective work environment.

Several empirical studies have confirmed the importance of these three variables in creating a perception of effectiveness in organizations. For example, research by Bass and Khan et al., (2020) shows that transformational leadership, which is part of leadership competence, has a significant impact on team motivation and performance, ultimately influencing the perception of organizational effectiveness (Khan et al., 2020). On the other hand, a study by Paais, (2022) found that adequate facilities can improve job satisfaction and employee efficiency (Paais, 2022), while research by Margaretha et al., (2024) revealed that high staff engagement directly contributes to organizational success (Margaretha et al., 2024). In the context of the method, *Partial Least Squares Structural Equation Modeling*

(PLS-SEM) is often used in studies that explore the relationship between several latent variables, including in this study. Hair et al, explained that PLS-SEM is a suitable method for exploratory research with complex models and relatively small sample sizes. This approach provides flexibility to analyze the relationship between reflective and formative variables and provides strong predictive estimation for structural model testing (J. F. Hair et al., 2019)

However, although many studies support the importance of leadership competencies, facilities, and staff engagement, there are still differences in research results, especially regarding cultural contexts and organizational types. In some cultures, for example, aspects of leadership may have a more dominant influence compared to physical facilities or staff involvement (Bush, 2020). Meanwhile, In public sector organizations, staff involvement is often more difficult to achieve than in private sector organizations, due to bureaucratic and rigid regulatory factors (Suzuki & Hur, 2020).

Thus, this literature review shows that although leadership competence, facilities, and staff engagement are important factors in creating a perception of effectiveness, the relative role of each factor may differ depending on the specific context of the organization and culture. This study is expected to contribute further in clarifying the role of each of these factors in improving the perception of effectiveness, especially in a complex and dynamic work environment.

Before drafting a hypothesis, it is important to understand the theoretical basis and conceptual framework that underpins this research. Relevant theories and previous research results show that there is a significant relationship between the variables studied, both in terms of direct and indirect influence. This study seeks to explain more deeply the relationship between these variables through detailed analysis so that it is expected to be able to make a meaningful theoretical and practical contribution. Based on the literature review and previous findings, the hypothesis in this study will be formulated as follows:

Hypothesis 1 (H1): Leadership Competencies have a positive and significant influence on Perception of Effectiveness in Education.

Leadership competence plays a crucial role in the management of educational institutions, where the ability of leaders to direct, motivate, and build a productive work environment can have a direct impact on the perception of the effectiveness of the institution. Competent leaders can create a clear vision, inspire staff, and make strategic decisions that support the development of the institution. With effective leadership, all elements in educational institutions can move harmoniously towards a common goal, thereby increasing the perception of educational effectiveness by stakeholders(Diana, 2024).

Hypothesis 2 (H2): Facilities have a positive and significant influence on the Perception of Effectiveness in Education.

The quality and availability of facilities in educational institutions is an important factor that affects the perception of educational effectiveness (Kaur & Bhalla, 2018). Adequate facilities, such as comfortable classrooms, well-equipped laboratories, and supporting technology, can create an optimal learning environment. The use of adequate facilities increases teaching efficiency and allows students to learn in a more interactive and immersive way. Therefore, the improvement of facilities will significantly contribute to a positive view of the effectiveness of education in the institution, both from the perspective of students, staff, and other parties involved.

Hypothesis 3 (H3): Staff Engagement has a positive and significant influence on Perception of Effectiveness in Education.

Staff involvement is a key factor in determining the success and perception of the effectiveness of an educational institution(Boldureanu et al., 2020). Actively engaged staff

demonstrate high commitment, participate in decision-making, and are motivated to achieve the best results in their work(Wafirah & Asih, 2018). When staff feel valued and fully contributed, they tend to work more efficiently and collaboratively, which has a positive impact on the overall educational experience. Therefore, high staff involvement can reinforce the perception that the educational institution is effective in meeting its goals and standards.

RESEARCH METHODS

This study uses primary data obtained through a survey of educational institutions with messaging applications (WA) in the Magelang area. The research population consists of two institutions that have a mature organizational structure and active staff participation. The sample was determined using purposive sampling or stratified random sampling techniques to ensure representativeness, with a sample number of 100 participants.

Table 1. Demographic Characteristics of Respondents (N = 100)

Characteristic	Category	N	(%)
Gender	Male	45	45.0
	Female	55	55.0
Grades	S1	80	86.0
	S2	16	14.0
Age	Average (SD)	37 (7.5)	-
	Range	25 - 55	-
Institution	Junior High School	25	25.0
	High School	75	75.0

This study uses the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach to analyze the influence of independent latent variables, namely *Leadership Competencies*, *Facilities*, and *Staff Engagement* on the dependent latent variable *Perception of Effectiveness in Education (PoE)*. PLS-SEM was chosen because it is suitable for testing predictive relationships between variables in complex models and can handle abnormal data distributions and relatively small samples. In this context, PLS-SEM allows researchers to analyze structural pathways simultaneously as well as estimate the strength of the influence of each latent variable on the dependent latent variable.

This research consists of two main stages: measurement model analysis and structural model analysis. The first stage focuses on testing the validity and reliability of the instrument, by ensuring that the indicator meets the standards through Loading Factor, Composite Reliability (CR), and Average Variance Extracted (AVE) values. The results of the analysis show that all latent variables—Leadership Competencies, Staff Engagement, Facilities, and Perception of Effectiveness in Education (PoE)—meet the required reliability and validity criteria.

The second stage is a structural model analysis that tests the influence of independent variables on dependent variables, using the value of path coefficients and R-squared (R²) to assess the contribution of independent variables in explaining the variability of dependent variables. The results show that Leadership Competencies, Facilities, and Staff Engagement together have a large contribution to influencing PoE. Hypothesis testing is carried out to determine the significant influence of each independent variable on the dependent variable, and the results of the interpretation will be further explained in the Result and Discussion section.

RESULTS AND DISCUSSION

Before presenting the results of the analysis of the resulting model, it is important to understand the structure of the relationship between variables in this study. This model tests the influence of three independent latent variables — Leadership Competencies, Facilities, and Staff Engagement — on the dependent latent variable Perception of Effectiveness. The path values displayed on each arrow line indicate the strength of the relationship between the variables, while the R-squared values on the dependent latent variable reflect how much the independent variable can explain the variability of the dependent variable. Thus, this analysis is expected to provide in-depth insights related to factors that play an important role in shaping the perception of effectiveness in the organization. The following is a narrative of the results obtained from the analysis of this model.

Table 2 shows the statistical description, instrument validity, and instrument reliability tests of the model involving four latent variables: Leadership Competencies, Staff Engagement, Facilities, and Perception of Effectiveness in Education (PoE). The mean of each indicator ranged from 3,810 to 4,400 with a standard deviation (SD) between 0.654 and 0.927, indicating a consistent distribution of responses. The loading factor for all indicators is above 0.7, indicating good validity. The Composite Reliability (CR) value for all constructs exceeded 0.8, and the Average Variance Extracted (AVE) exceeded 0.5, which indicates high reliability and sufficient convergence validity. The Leadership Competencies construct has a CR of 0.866 and an AVE of 0.597, Staff Engagement has a CR of 0.859 and an AVE of 0.577, Facilities has a CR of 0.902 and an AVE of 0.667, while PoE has a CR of 0.909 and an AVE of 0.725, indicating that the instrument meets the requirements of reliable and valid measurements.

Table 2. Description of Stats, Validity of Instruments, and Instrument Reliability Test

Table 2. Description	on of Stats,	vanan	y of ths	truments, and	ı instru	ment K	enadinty rest
Latent Variable	Indicator	Mean	SD	Loading	CR	AVE	Cronbach's
				Factor			Alpha
Leadership	LC1	3.810	0.821	0.735	0.866	0.597	0.905
Competencies							
_	LC2	3.970	0.768	0.710			
	LC3	3.980	0.761	0.817			
	LC4	3.860	0.813	0.839			
	LC5	4.000	0.927	0.748			
	LC6	3.910	0.801	0.779			
Staff Engagement	SE1	3.870	0.833	0.705	0.859	0.577	0.893
	SE2	4.000	0.735	0.752			
	SE3	4.180	0.767	0.781			
	SE4	4.170	0.801	0.806			
	SE5	4.090	0.838	0.729			
	SE6	3.850	0.726	0.781			
Facilities	F1	3.980	0.761	0.778	0.902	0.667	0.862
	F2	4.150	0.654	0.857			
	F3	4.270	0.733	0.879			
	F4	4.440	0.726	0.859			
Perception of	PoE	4.160	0.674	0.836	0.909	0.725	0.854
Effectiveness							
Education							
	PoE1	4.350	0.669	0.836			
	PoE2	4.030	0.866	0.796			

PoE3 4	4.400 0.6	693 0.913
PoE4 4	4.140 0.7	749 0.872
PoE5 3	3.810 0.8	821 0.836

The following tables show the results of the fit model in *the Structural Equation Modeling* (SEM) analysis. In the table, there are several indicators to assess the suitability of the model, both for *the Saturated model* and *the Estimated model*. The *Standardized Root Mean Square Residual* (SRMR) value is 0.069, which is below the 0.08 boundary, indicating that the model has a good fit. The d_ULS and d_G values are 0.989 and 0.623, respectively, which are commonly used in certain estimation methods to assess the difference between the model studied and the perfect (ideal) model. The result *of the Chi-square* is 330,538, which is generally smaller indicating a better model fit; however, this number also depends on the sample size and the complexity of the model. Finally, a *Normed Fit Index* (NFI) value of 0.786 indicates that the model has a moderate fit rate, where a value above 0.9 is usually considered good. Overall, these results indicate that the model has a fairly good match with the data, although some indicators could be improved.

Fit Index	Value	Fit Criteria
SUMMER	0.069	\leq 0.08 (Good Fit)
d_ULS	0.989	Better
d_G	0.623	Better
Chi-square	330.538	Better
NFI	0.786	\geq 0.90 (Good Fit)

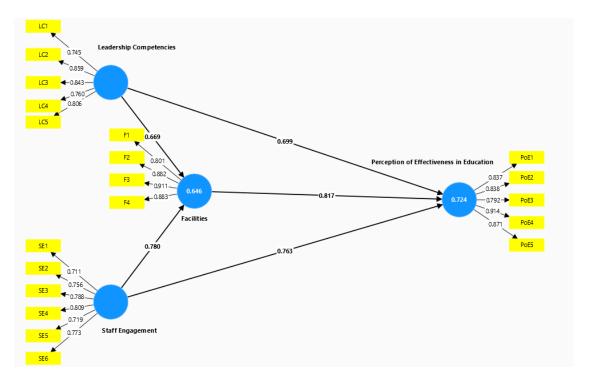


Figure 1. Structural Path Model of the Influence of Leadership Competencies, Facilities, and Staff Engagement on Perception of Effectiveness

The diagram illustrates a structural pathway model that shows the relationship between three latent variables: Leadership Competencies, Facilities, and Staff Engagement to the latent variable Perception of Effectiveness in Education (PoE). Leadership Competencies are

measured by LC1 to LC5 indicators with loading factors ranging from 0.745 to 0.883, showing a fairly strong contribution from each indicator. Facilities are measured by F1 to F4 indicators, with the highest loading factor at F4 (0.911) and the lowest at F1 (0.669), indicating that these indicators are relevant in measuring construction. Staff Engagement was measured by indicators SE1 to SE6, with loading factors ranging from 0.719 to 0.809, showing a significant influence of each indicator (J. F. Hair et al., 2011).

The relationship between latent variables was also seen, where Leadership Competencies had a path with a coefficient value of 0.699 to PoE, Facilities had a path of 0.817 to PoE, and Staff Engagement had a path of 0.763 to PoE. This shows that Facilities have the greatest influence on the Perception of Effectiveness in Education, followed by Staff Engagement, and then Leadership Competencies. The R-squared (R²) value for Perception of Effectiveness in Education is 0.724, indicating that these three latent variables collectively explain 72.4% of the variability in the perception of educational effectiveness.

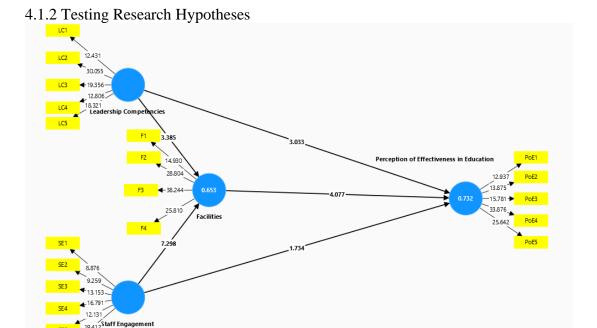


Figure 2. Testing Research Hypotheses

The results of the hypothesis test show that the influence of Leadership Competence and Facilities on the Perception of Effectiveness in Education is significant, with T values of 3,033 and 4,077, respectively, which shows a significant relationship at the confidence level of 95% and 99%. Thus, the hypothesis about the influence of these two variables is accepted. In contrast, the effect of Staff Engagement on Perception of Effectiveness in Education was not significant, with a T value of 1.734 which was below the threshold of 1.96, so this hypothesis was rejected. Overall, it can be concluded that only Leadership Competencies and Facilities significantly affect the Perception of Effectiveness in Education, while Staff Engagement does not show a significant influence.

The practical implementation of these results shows that to improve the Perception of Effectiveness in Education, the education management needs to prioritize the development of Leadership Competencies and improve the quality of facilities(Siswanto, 2024). Leadership training programs that focus on improving managerial and decision-making skills and investing in physical facilities and educational resources will have a positive impact. On the other hand, while Staff Engagement is important, focusing on strengthening this aspect alone may not be

enough to significantly increase the perception of effectiveness, so it must be combined with other, more impactful strategies.

Table 3. Path Coefficients and the Significance of Relationships Between Variables

Relationship	Coefficient	T-	P-value	Criterion
		statistics		
Facilities -> Perception of	0,476	4,077	0,000	Significant
Effectiveness in Education				(positive)
Leadership Competencies ->	0,280	3,385	0,001	Significant
Facilities				(positive)
Leadership Competencies ->	0,218	3,033	0,002	Significant
Perception of Effectiveness in	,			(positive)
Education				
Staff Engagement -> Facilities	0,598	7,298	0,000	Significant
				(positive)
Staff Engagement -> Perception of	0,250	1,734	0,083	Insignificant
Effectiveness in Education				

The results of the analysis showed several significant relationships between the variables tested. First, there is a positive and significant relationship between facilities and the perception of effectiveness in education, shown by a coefficient of 0.476 with a T-statistical value of 4.077 and a P-value of 0.000. This indicates that the better the facilities available, the higher the perception of effectiveness in education. Furthermore, leadership competence also had a significant effect on the quality of facilities, with a coefficient of 0.280, a T-statistic of 3.385, and a P-value of 0.001, which showed that the improvement of leadership competence was positively correlated with the improvement of facility quality.

Meanwhile, leadership competence also has a positive and significant relationship with the perception of effectiveness in education, with a coefficient of 0.218, a T-statistic of 3.033, and a P-value of 0.002. This indicates that strong leadership can increase the perception of educational effectiveness. In addition, staff involvement had a very significant influence on the quality of the facility, with a coefficient of 0.598, a T-statistic of 7.298, and a P-value of 0.000. However, staff involvement in the perception of effectiveness in education showed insignificant results, with a coefficient of 0.250, a T-statistic of 1.734, and a P-value of 0.083. This suggests that the influence of staff engagement on the perception of educational effectiveness may require additional factors to be significant.

Discussion

Based on the model analyzed using the *Partial Least Squares Structural Equation Modeling* (PLS-SEM) approach, *the R-squared* (R²) value in the endogenous variables *Facilities* and *Perception of Effectiveness* shows high predictive power of the model. According to Hair et al. (2019), an R² value of 0.75 or more is considered strong, while a value of around 0.50 is considered moderate, and a value below 0.25 is considered weak. With an R² value of 0.767 for *Facilities* and 0.722 for *Perception of Effectiveness*, these results show that this model has a strong ability to explain variability-independent variables. Thus, this model can be relied upon to provide insights into the factors that affect the perception of effectiveness in an organization.

This high level of explained variance confirms that the model is well-suited for providing meaningful insights into the factors that influence perceptions of effectiveness within an organization. The findings suggest that the model can serve as a reliable tool for understanding and predicting these perceptions, potentially guiding organizational strategies

aimed at enhancing both facilities and overall effectiveness.

Theoretically, these results strengthen the understanding of the relationship between Leadership Competencies, Facilities, and Staff Engagement in influencing the perception of effectiveness in organizations (Margaretha et al., 2024). The finding that Facilities and Staff Engagement have a significant influence on Perception of Effectiveness supports the theory of the importance of physical resources and employee engagement in creating an effective environment (Odhiambo & Hii, 2012). This is consistent with leadership theory which emphasizes that competent leaders not only focus on developing self-competence but also on providing facilities and team involvement in supporting the success of the organization. In particular, this model emphasizes the importance of non-managerial variables such as facilities in improving organizational effectiveness, which may be overlooked in traditional leadership theory.

From a practical standpoint, these findings provide insights for organizational leaders about the importance of facilities and staff involvement in achieving organizational effectiveness goals. As an implication, organizational leaders should allocate sufficient resources to improve existing facilities and ensure that they support the operational needs and productivity of staff. In addition, efforts to increase staff engagement can be realized through programs that involve their participation in the decision-making process and create a supportive work environment. These efforts, based on these findings, will have a direct impact on the perception of effectiveness within the organization.

The findings that show that *Facilities* have a strong influence on *Perception of Effectiveness* indicate the need to improve physical facilities in the organization. The development of physical facilities, including technological infrastructure, comfortable workspaces, and adequate equipment, can improve the perception of effectiveness and performance of staff. Organizations should consider adequate budget allocation for the maintenance and improvement of these facilities, as adequate facilities not only support work productivity but also increase employee motivation and job satisfaction. Thus, adequate physical facilities are an important aspect of creating a work environment that is conducive to organizational effectiveness.

High staff engagement has been shown to contribute significantly to the perception of effectiveness. This shows that organizations need to encourage active employee engagement by creating an inclusive and open work culture. Building staff engagement can be done through effective communication strategies, rewarding employee achievements, and fostering positive interpersonal relationships. Organizations that encourage staff engagement tend to have more motivated employees, have a high sense of ownership, and are committed to achieving organizational goals. Therefore, managers need to pay attention to approaches that can increase staff engagement as a strategy to increase organizational effectiveness.

While the results of this study provide valuable insights, some limitations need to be noted. First, the model only involves three main independent variables — *Leadership Competencies*, *Facilities*, and *Staff Engagement*. There are still other variables that may affect the *Perception of Effectiveness*, such as organizational culture factors, external work environment, and company policies. Therefore, the generalization of these results may be limited to similar organizational contexts and cannot cover all influential factors.

The PLS-SEM approach used in this study has weaknesses related to different assumptions compared to the covariate-based SEM method. Hair et al mentioned that PLS-SEM is more suitable for predictive models but less ideal for models that focus on complex theoretical confirmations (J. F. Hair et al., 2019). This method tends to prioritize predictive abilities rather than rigorous hypothesis testing. Thus, the results of this study are more appropriately interpreted in the context of exploring the relationship between variables, not as proof of the theory as a whole. With these limitations, future research may consider the use of

covariant-based SEM methods or other methods that are more suitable for confirming theories. In addition, the addition of moderation or mediation variables can also provide a deeper understanding of the factors that affect the perception of effectiveness. Longitudinal studies are also recommended to understand the changes in the influence of these variables on effectiveness over time. With the development of the research design, it is hoped that future research results can provide more comprehensive results.

CLOSING

Based on the results of the study, it can be concluded that *Facilities* and *Staff Engagement* have a significant influence on *the Perception of Effectiveness* in the organization, while *Leadership Competencies* show a lower direct influence on the perception of effectiveness. These findings underscore the importance of non-managerial aspects, such as physical facilities and employee engagement, in improving organizational effectiveness. In this context, adequate facilities and staff involvement contribute directly to the perception of effectiveness, which shows that these elements are important factors that should not be overlooked by management.

The implications of these results provide practical guidance for organizational leaders to optimally allocate resources in facility development and staff engagement enhancement programs. While leadership competencies remain relevant, leaders should not only focus on self-development but also on creating a conducive work environment through supportive facilities and an inclusive and participatory work culture. With this strategy, organizations can increase the perception of effectiveness which has the potential to strengthen the overall performance and sustainability of the organization.

BIBLIOGRAPHY

- Akdere, M., & Egan, T. (2020). Transformational leadership and human resource development: Linking employee learning, job satisfaction, and organizational performance. *Human Resource Development Quarterly*, 31(4), 393–421.
- Akour, M., & Alenezi, M. (2022). Higher education future in the era of digital transformation. *Education Sciences*, 12(11), 784.
- Alshammari, A. A. (2020). The impact of human resource management practices, organizational learning, organizational culture and knowledge management capabilities on organizational performance in Saudi organizations: a conceptual framework. *Revista Argentina de Clínica Psicológica*, 29(4), 714.
- Andargie, M. S., & Azar, E. (2019). An applied framework to evaluate the impact of indoor office environmental factors on occupants' comfort and working conditions. *Sustainable Cities and Society*, 46, 101447.
- Bagga, S. K., Gera, S., & Haque, S. N. (2023). The mediating role of organizational culture: Transformational leadership and change management in virtual teams. *Asia Pacific Management Review*, 28(2), 120–131.
- Boldureanu, G., Ionescu, A. M., Bercu, A.-M., Bedrule-Grigoruță, M. V., & Boldureanu, D. (2020). Entrepreneurship education through successful entrepreneurial models in higher education institutions. *Sustainability*, *12*(3), 1267.
- Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly*, 238–263.
- Bush, T. (2020). Theories of educational leadership and management.
- Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, 11(1), 479–516. https://doi.org/10.5465/annals.2015.0099

- Diana, D. (2024). Realisasi Kompetensi Manajerial dalam Kepemimpinan Yang Efektif dan Visioner. *ALACRITY: Journal of Education*, 64–78.
- Dzimińska, M., Fijałkowska, J., & Sułkowski, Ł. (2018). Trust-based quality culture conceptual model for higher education institutions. *Sustainability*, *10*(8), 2599.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442–458.
- Heinen, M., van Oostveen, C., Peters, J., Vermeulen, H., & Huis, A. (2019). An integrative review of leadership competencies and attributes in advanced nursing practice. *Journal of Advanced Nursing*, 75(11), 2378–2392.
- Heleta, S., & Bagus, T. (2021). Sustainable development goals and higher education: leaving many behind. *Higher Education*, 81(1), 163–177.
- Huang, Q., Cui, X., & Ma, L. (2023). The Equity of Basic Educational Facilities from the Perspective of Space. *Sustainability*, *15*(15), 12031.
- Ireland, R. D., & Hitt, M. A. (1999). Achieving and maintaining strategic competitiveness in the 21st century: The role of strategic leadership. *Academy of Management Perspectives*, 13(1), 43–57.
- Kaur, H., & Bhalla, G. S. (2018). Determinants of effectiveness in public higher education-students' viewpoint. *International Journal of Educational Management*, 32(6), 1135–1155
- Kerfoot, K. (2007). Staff engagement: It starts with the leader. *Dermatology Nursing*, 19(5), 490.
- Khan, H., Rehmat, M., Butt, T. H., Farooqi, S., & Asim, J. (2020). Impact of transformational leadership on work performance, burnout and social loafing: a mediation model. *Future Business Journal*, *6*(1), 1–13. https://doi.org/10.1186/s43093-020-00043-8
- Kilag, O. K. T., Uy, F. T., Calledo, M. F. S., Cerna, Y. T. Dela, Villanueva, K. M., & Angtud, N. A. A. (2023). Quality performance of teachers: work environment, work attitude, and principal supervision: qualitative investigation. *Science and Education*, *4*(7), 415–429.
- Kioupi, V., & Voulvoulis, N. (2019). Education for sustainable development: A systemic framework for connecting the SDGs to educational outcomes. *Sustainability*, *11*(21), 6104.
- Leal Filho, W., Eustachio, J. H. P. P., Caldana, A. C. F., Will, M., Lange Salvia, A., Rampasso, I. S., Anholon, R., Platje, J., & Kovaleva, M. (2020). Sustainability leadership in higher education institutions: An overview of challenges. *Sustainability*, *12*(9), 3761.
- Leal Filho, W., Vargas, V. R., Salvia, A. L., Brandli, L. L., Pallant, E., Klavins, M., Ray, S., Moggi, S., Maruna, M., & Conticelli, E. (2019). The role of higher education institutions in sustainability initiatives at the local level. *Journal of Cleaner Production*, 233, 1004–1015.
- Lee, H. W., & Kim, E. (2020). Workforce diversity and firm performance: Relational coordination as a mediator and structural empowerment and multisource feedback as moderators. *Human Resource Management*, 59(1), 5–23.
- Leitão, J., Pereira, D., & Gonçalves, Â. (2019). Quality of work life and organizational performance: Workers' feelings of contributing, or not, to the organization's productivity. *International Journal of Environmental Research and Public Health*, 16(20), 3803.

- Liu, X., Yu, J., Guo, Q., & Li, J. (2022). Employee engagement, its antecedents and effects on business performance in hospitality industry: a multilevel analysis. *International Journal of Contemporary Hospitality Management*, 34(12), 4631–4652.
- Lockett, A., Thompson, S., & Morgenstern, U. (2009). The development of the resource-based view of the firm: A critical appraisal. *International Journal of Management Reviews*, 11(1), 9–28.
- Margaretha, M., Prajnanta, F., Prabandari, S. P., Noermijati, N., & Kurniawati, D. T. (2024). Fostering Employee Engagement: a Qualitative Study of Post-Merger Integration in the Agrochemical Industry. *Polish Journal of Management Studies*, 29(2), 380–393. https://doi.org/10.17512/pjms.2024.29.2.20
- Matarneh, S. T., Danso-Amoako, M., Al-Bizri, S., Gaterell, M., & Matarneh, R. (2019). Building information modeling for facilities management: A literature review and future research directions. *Journal of Building Engineering*, 24, 100755.
- Nazir, O., & Islam, J. U. (2017). Enhancing organizational commitment and employee performance through employee engagement: An empirical check. *South Asian Journal of Business Studies*, 6(1), 98–114.
- Nienaber, H., & Martins, N. (2020). Exploratory study: Determine which dimensions enhance the levels of employee engagement to improve organisational effectiveness. *The TQM Journal*, 32(3), 475–495.
- O'Connor, E. P., & Crowley-Henry, M. (2019). Exploring the relationship between exclusive talent management, perceived organizational justice and employee engagement: Bridging the literature. *Journal of Business Ethics*, 156, 903–917.
- Odhiambo, G., & Hii, A. (2012). Key stakeholders' perceptions of effective school leadership. *Educational Management Administration & Leadership*, 40(2), 232–247.
- Oyekale, A. S. (2017). Assessment of primary health care facilities' service readiness in Nigeria. *BMC Health Services Research*, 17, 1–12.
- Paais, M. (2022). The Influence of Facilities and Motivation on Employee Productivity. *Journal of Multidisciplinary Research*, *I*(4), 21–31. https://journal.jfpublisher.com/index.php/jmrVol.1Issue.4%0Ahttps://doi.org/10.5694 3/jmr.v1i4.204
- Pambudi, N. A., & Harjanto, B. (2020). Vocational education in Indonesia: History, development, opportunities, and challenges. *Children and Youth Services Review*, 115, 105092.
- Reed, B. N., Klutts, A. M., & Mattingly II, T. J. (2019). A systematic review of leadership definitions, competencies, and assessment methods in pharmacy education. *American Journal of Pharmaceutical Education*, 83(9), 7520.
- Shet, S. V, Patil, S. V, & Chandawarkar, M. R. (2019). Competency based superior performance and organizational effectiveness. *International Journal of Productivity and Performance Management*, 68(4), 753–773.
- Siswanto, S. (2024). The effect of self-directed learning (SDL) in higher education: Increasing student independence and achievement. *Jurnal Inovasi Teknologi Pendidikan*, 11(1), 35–43.
- Suzuki, K., & Hur, H. (2020). Bureaucratic structures and organizational commitment: findings from a comparative study of 20 European countries. *Public Management Review*, 22(6), 877–907.
- Tang, G., Chen, Y., van Knippenberg, D., & Yu, B. (2020). Antecedents and consequences of empowering leadership: Leader power distance, leader perception of team capability, and team innovation. *Journal of Organizational Behavior*, 41(6), 551–566.
- Tourangeau, A. N. N., Cranley, L., SPENCE LASCHINGER, H. K., & Pachis, J. (2010). Relationships among leadership practices, work environments, staff communication

- and outcomes in long-term care. Journal of Nursing Management, 18(8), 1060–1072.
- Wafirah, M., & Asih, T. S. N. (2018). Mathematical Reasong and Math Anxiety on Connected Mathematics Project Based on Quantum Learning. *Unnes Journal of Mathematics Education Research*, 7(2), 104–110.
- Wei, F., Li, Y., Zhang, Y., & Liu, S. (2018). The interactive effect of authentic leadership and leader competency on followers' job performance: The mediating role of work engagement. *Journal of Business Ethics*, 153(3), 763–773.